What is claimed is:

1. A method for producing an amorphous alloy sheet, the method comprising:

preparing a melt containing alloy components;

feeding the melt into a gap defined between two rolls, which rotate in opposite direction to each other, and each of which is provided with heat exchange means; and

cooling the melt at a cooling rate higher than the critical cooling rate for transformation of the melt into an amorphous solid phase, when the melt passes through the gap defined between the two rolls.

2. The method according to claim 1, wherein the step of preparing the melt is carried out in an inert atmosphere.

3. The method according to claim 1, wherein the heat exchange means is a circuit for flow of a cooling fluid.

4. The method according to claim 3, wherein the cooling fluid is cooling water or cooling oil.

5. The method according to claim 1, wherein the two rolls are made of a copper-based alloy containing material.

6. The method according to claim 1, wherein the temperature of the melt to be fed into the gap defined between the two rolls is in the range of 500 to 1,500℃, the surface temperature of the two rolls is in the range of 15 to 30℃, the rotation rate of the two rolls is in the range of 1 to 10 cm/sec, and the gap between the two rolls is in the range of 0.5 to 20 mm.

7. An apparatus for producing an amorphous alloy sheet, the

apparatus comprising:

a crucible for receiving a melt containing alloy components, which is provided with a melt outlet;

two rolls, each of which is provided with heat exchange means to cool the melt at a cooling rate higher than the critical cooling rate for transformation of the melt into an amorphous solid phase when the melt passes through a gap defined between the two rolls; and

a connecting channel for passing the melt from the melt outlet of the crucible to the gap defined between the two rolls.

8. The apparatus according to claim 7, wherein the crucible is a melting crucible that can control a crucible atmosphere.

9. The apparatus according to claim 7, wherein the crucible comprises a stopper that can open and shut the melt outlet.

10. The apparatus according to claim 7, wherein the connecting channel comprises a heating unit that can adjust the temperature of the melt in the connecting channel and a gas supply unit that can control an atmosphere in the connecting channel.

11. The apparatus according to claim 7, wherein the two rolls are made of a copper-based alloy containing material.

12. The apparatus according to claim 7, wherein the heat exchange means is a circuit for flow of a cooling fluid.

13. The apparatus according to claim 12, wherein the cooling fluid is cooling water or cooling oil.

14. The apparatus according to claim 7, wherein the gap

between the two rolls is in the range of 0.5 to 20 mm.

15. The apparatus according to claim 7, wherein the two rolls are arranged in such a manner that an angle defined by the horizontal and a straight line connecting the respective rotation centers of the two rolls, is in the range of 0 to 90 degrees.

16. The apparatus according to claim 7, wherein the rotation rate of the two rolls is in the range of 1 to 10 cm/sec.

17. A bulk amorphous alloy sheet prepared by the method according to claim 1.

18. The bulk amorphous alloy sheet according to claims 17, which has a thickness of 0.5 to 20 mm.